

Serial No. 10/669,786

Claims:

1. **(Previously Presented)** A receiver of digital data bursts comprising: an antenna array;; a first space time filter having filter coefficients initialised by estimation over just training data in a received burst and providing symbol estimates at a first output; a second space time filter having filter coefficients initialised by estimation over the received burst and providing symbol estimates at a second output, in use at least one pass to determine a symbol estimate in the received burst being undertaken by each space time filter; and a selector arranged to use the symbol estimates from the first and second outputs to determine which of the first and second filters provides the symbol estimate closer to an expected value.
2. **(Previously Presented)** A receiver according to claim 1, in which the filter giving the symbol estimate closer to the expected value is selected by the selector to continue with at least one further pass to provide an updated symbol estimate to a projector to a finite alphabet so as to enable a decision as to the identity of that symbol to be made.
3. **(Original)** A receiver according to claim 1 or claim 2, in which for each new received burst, both filters perform at least one pass to determine a respective symbol estimate in the received burst, and the selector operates to determine which of the first and second filters provides the symbol estimate closer to an expected value.
4. **(Original)** A receiver according to claim 3, in which the estimation by the first filter and the second filter is least squares estimation.
5. **(Original)** A terminal for mobile telecommunications according to claim 4 which is a base station or a mobile user terminal.
6. **(Original)** A terminal according to claim 4, operative to receive data bursts sent using Orthogonal Frequency Division Multiplexing (OFDM).

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7. (Original) A terminal according to claim 4, operative to receive data bursts sent using Time Division Multiple Access (TDMA).

8. (Original) A receiver according to claims 1 or 2, in which the estimation by the first filter and the second filter is least squares estimation.

9. (Original) A terminal for mobile telecommunications according to claim 8 which is a base station or a mobile user terminal.

10. (Original) A terminal according to claim 8, operative to receive data bursts sent using Orthogonal Frequency Division Multiplexing (OFDM).

11. (Original) A terminal according to claim 8, operative to receive data bursts sent using Time Division Multiple Access (TDMA).

12. (Original) A terminal for mobile telecommunications comprising a receiver according to claims 1 or 2.

13. (Original) A terminal for mobile telecommunications according to claim 12 which is a base station or a mobile user terminal.

14. (Original) A terminal according to claim 12, operative to receive data bursts sent using Orthogonal Frequency Division Multiplexing (OFDM).

15. (Original) A terminal according to claim 12, operative to receive data bursts sent using Time Division Multiple Access (TDMA).

16. (Previously Presented) A method of receiving digital data bursts using a receiver comprising: an antenna array, a first space time filter having filter coefficients initialised by estimation over just training data in a received burst and providing symbol estimates at a first output and a second space time filter having filter coefficients initialised by

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estimation over the received burst and providing symbol estimates at a second output, at least one pass to determine a symbol estimate in the received burst being undertaken by each space time filter, and a selector using the symbol estimates from the first and second outputs to determine which of the first and second filters provides the symbol estimate closer to an expected value.